

CITY OF NAPLES, FLORIDA
AGREEMENT
(SERVICES)

Bid/Proposal No. **14-046**

Clerk Tracking No. 14-00106

Project Name: **WWTP – Wastewater Treatment Plant Bar Screens Replacement**

THIS AGREEMENT (the "Agreement") is made and entered into this 20th day of August, 2014, by and between the City of Naples, a Florida municipal corporation, (the "CITY") and **Quality Enterprises USA, Incorporated**, a Virginia Corporation, located at: **3894 Mannix Drive, Suite 216; Naples, Florida 34114-5406** (the "CONTRACTOR").

WITNESSETH:

WHEREAS, the CITY desires to obtain the services of the CONTRACTOR concerning certain services specified in this Agreement (referred to as the "Project"); and

WHEREAS, the CONTRACTOR has submitted an **(ITB) Invitation to Bid No. 14-046** for provision of those services; and

WHEREAS, the CONTRACTOR represents that it has expertise in the type of services that will be required for the Project.

NOW, THEREFORE, in consideration of the mutual covenants and provisions contained herein, the parties hereto agree as follows:

ARTICLE ONE
CONTRACTOR'S RESPONSIBILITY

1.1. The Services to be performed by CONTRACTOR are generally described as **WWTP – Waste Water Treatment Plant Bar Screens Replacement** and may be more fully described in the Scope of Services, attached as **EXHIBIT A** and made a part of this Agreement.

1.2. The CONTRACTOR agrees to obtain and maintain throughout the period of this Agreement all such licenses as are required to do business in the State of Florida, the City of Naples, and in Collier County, Florida, including, but not limited to, all licenses required by the respective state boards and other governmental agencies responsible for regulating and licensing the services to be provided and performed by the CONTRACTOR pursuant to this Agreement.

1.3. The CONTRACTOR agrees that, when the services to be provided hereunder relate to a professional service which, under Florida Statutes, requires a license, certificate of authorization or other form of legal entitlement to practice such services, it shall employ or retain only qualified personnel to provide such services.

1.4. CONTRACTOR agrees to employ and designate, in writing, within 5 calendar days after receiving its Notice to Proceed, or other directive from the CITY, a qualified employee to serve as the

CONTRACTOR's project manager (the "Project Manager"). The Project Manager shall be authorized and responsible to act on behalf of the CONTRACTOR with respect to directing, coordinating and administering all aspects of the services to be provided and performed under this Agreement.

1.5. The CONTRACTOR has represented to the CITY that it has expertise in the type of services that will be required for the Project. The CONTRACTOR agrees that all services to be provided by CONTRACTOR pursuant to this Agreement shall be subject to the CITY's review and approval and shall be in accordance with the generally accepted standards of practice in the State of Florida, as may be applied to the type of services to be rendered, as well as in accordance with all published laws, statutes, ordinances, codes, rules, regulations and requirements of any governmental agencies which regulate or have jurisdiction over the Project or the services to be provided and performed by CONTRACTOR. In the event of any conflicts in these requirements, the CONTRACTOR shall notify the CITY of such conflict and utilize its best professional judgment to advise CITY regarding resolution of the conflict.

1.6. The CONTRACTOR agrees not to divulge, furnish or make available to any third person, firm or organization, without CITY's prior written consent, or unless incident to the proper performance of the CONTRACTOR's obligations hereunder, or in the course of judicial or legislative proceedings where such information has been properly subpoenaed, any non-public information concerning the services to be rendered by CONTRACTOR hereunder, and CONTRACTOR shall require all of its employees, agents, sub-consultants and subcontractors to comply with the provisions of this paragraph. However, the CONTRACTOR shall comply with the Florida Public Records laws.

1.7 The CONTRACTOR agrees not to employ or offer to employ any Elected Officer or City Managerial Employee of the CITY who in any way deals with, coordinates on, or assists with, the services provided in this Agreement, for a period of 2 years after termination of all provisions of this Agreement. For purposes of this paragraph, the term "Elected Officer" shall mean any member of the City Council. For purposes of this paragraph, the term "City Managerial Employee" shall mean the City Manager, the Assistant City Manager, the City Clerk, and any City department head or director. If the CONTRACTOR violates the provisions of this paragraph, the CONTRACTOR shall be required to pay damages to the CITY in an amount equal to any and all compensation which is received by the former Elected Officer or City Managerial Employee of the CITY from or on behalf of the contracting person or entity, or an amount equal to the former Elected Officer's or City Managerial Employee's last 2 years of gross compensation from the CITY, whichever is greater.

1.8 The CONTRACTOR agrees not to provide services for compensation to any other party other than the CITY on the same subject matter, same project, or scope of services as set forth in this Agreement without approval from the City Council of the CITY.

1.9. Except as otherwise provided in this Agreement, the CONTRACTOR agrees not to disclose or use any information not available to members of the general public and gained by reason of the CONTRACTOR's contractual relationship with the CITY for the special gain or benefit of the CONTRACTOR or for the special gain or benefit of any other person or entity.

ARTICLE TWO CITY'S RESPONSIBILITIES

2.1. The CITY shall designate in writing a project coordinator to act as the CITY's representative with respect to the services to be rendered under this Agreement (the "Project Coordinator"). The Project Coordinator shall have authority to transmit instructions, receive information, interpret and

define the CITY's policies and decisions with respect to the CONTRACTOR's services for the Project. However, the Project Coordinator is not authorized to issue any verbal or written orders or instructions to the CONTRACTOR that would have the effect, or be interpreted to have the effect, of modifying or changing in any way whatever:

- (a) The scope of services to be provided and performed by the CONTRACTOR;
- (b) The time the CONTRACTOR is obligated to commence and complete all such services; or
- (c) The amount of compensation the CITY is obligated or committed to pay the CONTRACTOR.

Any such modifications or changes ((a) (b) or (c)) shall only be made by or upon the authorization of the CITY's city manager as authorized by city council in the enabling legislation or in the CITY's procurement policies.

2.2. The Project Coordinator shall:

- (a) Review and make appropriate recommendations on all requests submitted by the CONTRACTOR for payment for services and work provided and performed in accordance with this Agreement;
- (b) Arrange for access to and make all provisions for the CONTRACTOR to enter the Project site to perform the services to be provided by the CONTRACTOR under this Agreement; and
- (c) Provide notice to the CONTRACTOR of any deficiencies or defects discovered by the CITY with respect to the services to be rendered by the CONTRACTOR hereunder.

2.3. The CONTRACTOR acknowledges that access to the Project Site, to be arranged by the CITY for the CONTRACTOR, may be provided during times that are not the normal business hours of the CONTRACTOR.

ARTICLE THREE TIME

3.1. Services to be rendered by the CONTRACTOR shall be commenced subsequent to the execution of this Agreement upon written Notice to Proceed from the CITY for all or any designated portion of the Project and **shall be performed and substantial completion of 180 days from the Notice to Proceed and Final Completion of 30 days from Substantial Completion.** Time is of the essence with respect to the performance of this Agreement. **Project must be completed by March 15, 2015** to accommodate a new development. **Project Close Out** shall be performed within **60 days** of Final Completion.

3.2. Should the CONTRACTOR be obstructed or delayed in the prosecution or completion of its services as a result of unforeseeable causes beyond the control of the CONTRACTOR, and not due to its own fault or neglect, including but not restricted to acts of God or of public enemy, acts of government or of the CITY, fires, floods, epidemics, quarantine regulations, strikes or lock-outs, then the CONTRACTOR shall notify the CITY in writing within 5 working days after commencement of

such delay, stating the cause or causes thereof, or be deemed to have waived any right which the CONTRACTOR may have had to request a time extension.

3.3. No interruption, interference, inefficiency, suspension or delay in the commencement or progress of the CONTRACTOR's services from any cause whatsoever, including those for which the CITY may be responsible in whole or in part, shall relieve the CONTRACTOR of its duty to perform or give rise to any right to damages or additional compensation from the CITY. The CONTRACTOR's sole remedy against the CITY will be the right to seek an extension of time to its schedule. This paragraph shall expressly apply to claims for early completion, as well as claims based on late completion.

3.4. Should the CONTRACTOR fail to commence, provide, perform or complete any of the services to be provided hereunder in a timely and reasonable manner, in addition to any other rights or remedies available to the CITY hereunder, the CITY at its sole discretion and option may withhold any and all payments due and owing to the CONTRACTOR until such time as the CONTRACTOR resumes performance of its obligations hereunder in such a manner so as to reasonably establish to the CITY's satisfaction that the CONTRACTOR's performance is or will shortly be back on schedule.

3.5 Liquidated Damages: (N/A) Not applicable to this Agreement.

3.6 Bond. A Payment & Performance Bond with a surety insurer authorized to do business in this state as surety (check) one _____ has been recorded in the public records of the County, XXX prior to commencement of work, will be recorded in the public records of the County, or _____ is waived.

ARTICLE FOUR COMPENSATION

4.1. The total compensation to be paid the CONTRACTOR by the CITY for all Services is **\$448,041.85 that includes a \$40,000.00 CITY controlled Contingency** and shall be paid in the manner set forth in the "Basis of Compensation", which is attached as **EXHIBIT B** and made a part of this Agreement.

ARTICLE FIVE MAINTENANCE OF RECORDS

5.1. The CONTRACTOR will keep adequate records and supporting documentation which concern or reflect its services hereunder. The records and documentation will be retained by the CONTRACTOR for a minimum of five 5 years from the date of termination of this Agreement or the date the Project is completed, whichever is later. The CITY, or any duly authorized agents or representatives of the CITY, shall have the right to audit, inspect and copy all such records and documentation as often as they deem necessary during the period of this Agreement and during the 5 year period noted above; provided, however, such activity shall be conducted only during normal business hours. If the CONTRACTOR desires to destroy records prior to the minimum period, it shall first obtain permission from the CITY in accordance with the Florida Public Records laws.

ARTICLE SIX INDEMNIFICATION

6.1. The CONTRACTOR agrees to indemnify and hold harmless the City from liabilities, damages, losses and costs, including, but not limited to, reasonable attorneys' fees, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of the CONTRACTOR and persons employer or utilized by the CONTRACTOR in the performance of the Contract.

ARTICLE SEVEN INSURANCE

7.1. CONTRACTOR shall obtain and carry, at all times during its performance under this Agreement, insurance of the types and in the amounts set forth in the document titled General Insurance Requirements, which is attached as **EXHIBIT C** and made a part of this Agreement.

ARTICLE EIGHT SERVICES BY CONTRACTOR'S OWN STAFF

8.1. The services to be performed hereunder shall be performed by the CONTRACTOR's own staff, unless otherwise authorized in writing by the CITY. The employment of, contract with, or use of the services of any other person or firm by the CONTRACTOR, as independent contractor or otherwise, shall be subject to the prior written approval of the CITY. No provision of this Agreement shall, however, be construed as constituting an agreement between the CITY and any such other person or firm. Nor shall anything contained in this Agreement be deemed to give any such party or any third party any claim or right of action against the CITY beyond such as may otherwise exist without regard to this Agreement.

ARTICLE NINE WAIVER OF CLAIMS

9.1. The CONTRACTOR's acceptance of final payment shall constitute a full waiver of any and all claims, except for insurance company subrogation claims, by it against the CITY arising out of this Agreement or otherwise related to the Project, except those previously made in writing and identified by the CONTRACTOR as unsettled at the time of the final payment. Neither the acceptance of the CONTRACTOR's services nor payment by the CITY shall be deemed to be a waiver of any of the CITY's rights against the CONTRACTOR.

ARTICLE TEN TERMINATION OR SUSPENSION

10.1. The CONTRACTOR shall be considered in material default of this Agreement and such default will be considered cause for the CITY to terminate this Agreement, in whole or in part, as further set forth in this section, for any of the following reasons: (a) failure to begin work under the Agreement within the times specified under the Notice(s) to Proceed, or (b) failure to properly and timely perform the services to be provided hereunder or as directed by the CITY, or (c) the bankruptcy or insolvency or a general assignment for the benefit of creditors by the CONTRACTOR or by any of the CONTRACTOR's principals, officers or directors, or (d) failure to obey laws, ordinances, regulations or other codes of conduct, or (e) failure to perform or abide by the terms or spirit of this Agreement, or (f) for any other just cause. The CITY may so terminate this Agreement, in whole or in part, by giving the CONTRACTOR at least 3 calendar days' written notice.

10.2. If, after notice of termination of this Agreement as provided for in paragraph 10.1 above, it is determined for any reason that the CONTRACTOR was not in default, or that its default was

excusable, or that the CITY otherwise was not entitled to the remedy against the CONTRACTOR provided for in paragraph 10.1, then the notice of termination given pursuant to paragraph 10.1 shall be deemed to be the notice of termination provided for in paragraph 10.3 below and the CONTRACTOR's remedies against the CITY shall be the same as and limited to those afforded the CONTRACTOR under paragraph 10.3 below.

10.3. The CITY shall have the right to terminate this Agreement, in whole or in part, without cause upon 7 calendar day's written notice to the CONTRACTOR. In the event of such termination for convenience, the CONTRACTOR's recovery against the CITY shall be limited to that portion of the fee earned through the date of termination, together with any retainage withheld and any costs reasonably incurred by the CONTRACTOR that are directly attributable to the termination, but the CONTRACTOR shall not be entitled to any other or further recovery against the CITY, including, but not limited to, anticipated fees or profits on work not required to be performed.

ARTICLE ELEVEN CONFLICT OF INTEREST

11.1. The CONTRACTOR represents that it presently has no interest and shall acquire no interest, either direct or indirect, which would conflict in any manner with the performance of services required hereunder. The CONTRACTOR further represents that no persons having any such interest shall be employed to perform those services.

ARTICLE TWELVE MODIFICATION

12.1. No modification or change in this Agreement shall be valid or binding upon the parties unless in writing and executed by the party or parties intended to be bound by it.

ARTICLE THIRTEEN NOTICES AND ADDRESS OF RECORD

13.1. All notices required or made pursuant to this Agreement to be given by the CONTRACTOR to the CITY shall be in writing and shall be delivered by hand or by United States Postal Service Department, first class mail service, postage prepaid, return receipt requested, addressed to the following CITY's address of record:

City of Naples
735 Eighth Street South
Naples, Florida 34102-3796
Attention: **A. William Moss**, City Manager

13.2. All notices required or made pursuant to this Agreement to be given by the CITY to the CONTRACTOR shall be made in writing and shall be delivered by hand or by the United States Postal Service Department, first class mail service, postage prepaid, return receipt requested, addressed to the following CONTRACTOR's address of record:

Quality Enterprises USA, Incorporated
3894 Mannix Drive, Suite 216
Naples, Florida 34114-5406
Attention: **Louis J. Gaudio**, Vice President

FEI/EIN Number: 54-0947002 (State: VA)

13.3. Either party may change its address of record by written notice to the other party given in accordance with requirements of this Article.

**ARTICLE FOURTEEN
MISCELLANEOUS**

14.1. The CONTRACTOR, in representing the CITY, shall promote the best interest of the CITY and assume towards the CITY a duty of the highest trust, confidence, and fair dealing.

14.2. No modification, waiver, suspension or termination of the Agreement or of any terms thereof shall impair the rights or liabilities of either party.

14.3. This Agreement is not assignable, in whole or in part, by the CONTRACTOR without the prior written consent of the CITY.

14.4. Waiver by either party of a breach of any provision of this Agreement shall not be deemed to be a waiver of any other breach and shall not be construed to be a modification of the terms of this Agreement.

14.5. The headings of the Articles, Exhibits, Parts and Attachments as contained in this Agreement are for the purpose of convenience only and shall not be deemed to expand, limit or change the provisions in such Articles, Exhibits, Parts and Attachments.

14.6. This Agreement constitutes the entire agreement between the parties hereto and shall supersede, replace and nullify any and all prior agreements or understandings, written or oral, relating to the matter set forth herein, and any such prior agreements or understanding shall have no force or effect whatever on this Agreement.

14.7. The CONTRACTOR shall comply fully with all provisions of state and federal law, including without limitation all provisions of the Immigration Reform and Control Act of 1986 ("IRCA") as amended, as well as all related immigration laws, rules, and regulations pertaining to proper employee work authorization in the United States. The CONTRACTOR shall execute the Certification of Compliance with Immigration Laws, attached hereto as **EXHIBIT D**.

14.8. To the extent that any provision in the Specifications or any other Contract Documents pertaining to this Project conflict with any provision of this Agreement, this Agreement controls.

**ARTICLE FIFTEEN
APPLICABLE LAW**

15.1. Unless otherwise specified, this Agreement shall be governed by the laws, rules, and regulations of the State of Florida, and by the laws, rules and regulations of the United States when providing services funded by the United States government. Any suit or action brought by either party to this Agreement against the other party relating to or arising out of this Agreement must be brought in the appropriate Florida state court in Collier County, Florida.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement for the day and year first written above.

ATTEST:

By:

Patricia L. Rambosk
Patricia L. Rambosk, City Clerk

Approved as to form
and legal sufficiency:

By:

Robert D. Pritt
Robert D. Pritt, City Attorney

Witness

Marcie Cohen
Printed Witness Name

CITY:

CITY OF NAPLES, FLORIDA,
A Municipal Corporation

By:

A. William Moss
A. William Moss, City Manager

CONTRACTOR:

Quality Enterprises USA, Incorporated
3894 Mannix Drive, Suite 216
Naples, Florida 34114-5406
Attention: **Louis J. Gaudio**, Vice President
FEI/EIN Number: 54-0947002 (State: VA)
A Virginia Corporation

By:

Louis J. Gaudio

Its: Vice President

(CORPORATE SEAL)

Services Contract (not Architects/Engineers)

EXHIBIT A

SCOPE OF SERVICES

The Scope of Services to be provided under this Agreement are included in Exhibit A-1 which is attached and made a part of this Agreement and those set out in the Vendor's Submittal of (ITB) Invitation To Bid No.14-046, titled Wastewater Treatment Bar Screens Replacement herein referenced and made a part of this Agreement.

General Description:

This project includes but is not limited to the furnishing of all labor, material, equipment and incidentals required to furnish, install, and test, complete and ready for operation, one (1) mechanically-cleaned Multiple Rake Screen, one (1) screenings conveyor, control panels to provide proper operation of the new mechanical screen system and conveyor system, and all connections to existing equipment including conveyors and chutes.

END OF EXHIBIT A

**SECTION 01010
SUMMARY OF WORK****PART 1 GENERAL****1.01 WORK COVERED BY CONTRACT DOCUMENTS**

- A. The completed Work will provide Owner with a new mechanically-cleaned Multiple Rake Screen and conveyor system at City's 10 mgd Wastewater Treatment Plant (WWTP). The work to be performed includes the following major tasks:
1. Removal and disposal of the existing mechanical bar screen and conveyor system. The City retains the right to keep any or all of the components removed.
 2. Furnish all labor, material, equipment and incidentals required to furnish, install, and test, complete and ready for operation, one (1) self-cleaning Rake screen, one (1) screenings conveyor, control panels to provide proper operation of the new mechanical screen system and conveyor system, and all connections to existing equipment including conveyors and chutes.
 3. Concrete work required to install the new mechanical bar screen and conveyor systems, including concrete repair and structural steel if required.
 4. Remove and dispose waste created from Contractor's operations.
 5. Remove and cap existing piping for existing wash system.
 6. Replace the existing power and control wiring from motors and drives to the control panel with like materials and sizes. Contractor to field measure the length of the wiring required prior to submitting a bid.
- B. **All electrical installation to be installed in a workman like manor meeting or exceeding standard industry practices and current codes. Contractor shall visit site and become familiar with existing conditions and include the following upgrades as a minimum requirements:**
1. Match all over current protection, all power and control conductors to the new equipment manufacturer's requirements including updating complete electrical installation to all current national electrical and local codes.
 2. Mount control panel to meet or exceed 140 plus 1.15 factor mile per hour wind load.
 3. All electrical hardware, strut, fasteners to be 316 stainless steel.
 4. All junction and pull boxes shall be 316 stainless steel.
 5. All panel and junction box penetrations to utilize Meyers hubs to maintain NEMA 4X integrity.

CONFIDENTIAL

6. Power conductors minimum standard shall be THWN or XHHW suitable for wet locations.
7. All control conductors shall match manufacturer's recommendations.
8. All signal conductors shall be twisted shielded pairs.

PART 2 PRODUCTS

- A. See attached Specification Section 11331 and the City of Naples specifications and details located at the link below:
<http://www.naplesgov.com/DocumentCenter/>

PART 3 EXECUTION

- B. Contractor to field verify all dimensions prior to bid submittal and shop drawing submittal. Existing drawings have been provided for informational purposes.
- C. The City intends to replace the southern screen and may choose to replace the northern screen as well. If the City chooses to replace both screens, only one screen may be taken out of service at a time. Work on the second screen cannot begin until the first screen has been cleared for service as determined by the manufacture and the Owner and has successfully operated for a minimum of two week.
- D. All the work to be performed on a mechanical bar screen has to be coordinated with the WRF operations. Operation of the mechanical screen system not being replaced must be maintained while work is performed on the mechanical screen system to be replaced. It is estimated that the one mechanical screen system can be taken offline for a maximum of two weeks based on conditions at the plant.
- E. Contractor to plan and conduct the work such that down time of a mechanical screen system is minimized.
- F. Owner will provide staging area. Contractor to coordinate with the owner for details.
- G. Contractor to account for weather conditions while planning and performing the coating work.
- H. All Work included in the Contract Documents will be substantially completed within one hundred and eighty (180) days and finally complete two hundred and ten (210) days after the date when Contract Times commence to run.

END OF SECTION

SECTION 11331**MECHANICAL SCREENING SYSTEM****PART 1 - GENERAL****1.01 DESCRIPTION**

- A. Scope of Work: Furnish all labor, material, equipment and incidentals required to furnish, install, and test, complete and ready for operation, one (1) mechanically-cleaned Multiple Rake Screen, one (1) screenings conveyor, control panels to provide proper operation of the new mechanical screen system and conveyor system, and all connections to existing equipment including conveyors and chutes.**
- 1. The mechanically-cleaned multiple rake screen shall be manufactured from AISI 304L stainless steel and be furnished complete with bar rack, dead plate, discharge chute, side frames, covers, rakes, drive chains, bearings, scraper assembly, drive motor, gear reducer, anchor bolts, controls and all accessories and appurtenances specified or otherwise required for a complete and properly operating installation.**
 - 2. Each conveyor shall consist of a shaftless spiral screw, trough, inlet chutes, support legs, covers, electrical controls and new wiring; and all other appurtenances required to replace the existing conveyor system.**
 - 3. The new control panels provided for the rake screen and conveyors shall be located on top of the deck at the location of the existing controls. Existing conduit may be used, but new electrical wiring is required.**
 - 4. All hardware, straps, brackets, bolts, etc. shall be Type 304 stainless steel.**
 - 5. All work necessary, including concrete work, to install the new screen and conveyor systems into the existing southern influent waste channel of the preliminary treatment building. Contractor shall be responsible for all structural and other alterations required to accommodate equipment differing in dimensions or other characteristics from these specifications and existing site conditions.**
 - 6. Contractor shall install the equipment according to instructions and recommendations of the equipment manufacturer.**

7. **Power supply is 480 Volts, 60 Hz, 3-phase.**

1.02 QUALITY ASSURANCE

- A. **Qualifications: All of the equipment specified herein shall be furnished by a single manufacturer who regularly engages in the production of this type of equipment in the United States and who is fully experienced, reputable and qualified in the manufacture of the equipment to be furnished. Each component and ancillary equipment item furnished under this Specification shall be new and unused, of the type, size, design, and efficiency installed on previous projects and the product of a manufacturer having a successful record of manufacturing and servicing the equipment for a minimum of ten (10) years in the United States prior to bid date. Manufacturer shall have a minimum of ten (10) year experience producing equipment substantially similar to that required and shall submit documentation of at least fifteen (15) independent installations in the United States using the same size or larger equipment as detailed in the below. Each installation must have been in satisfactory operation for at least five (5) years**
- B. **The Contract Documents represent the minimum acceptable standards for the screening equipment for this project. All equipment shall conform fully in every respect to the requirements of the respective parts and sections of the drawings and specifications. The entire unit shall be Manufacturer's standard product, but shall be modified, redesigned, furnished with special features or accessories, made of materials or provided with finishes as may be necessary to conform to the quality mandated by the technical and performance requirements of the specification.**
- C. **The entire unit shall be manufactured from AISI 304L stainless steel shapes. All components made of stainless steel shall be passivated by full submergence in a pickling bath for perfect surface finishing as per ASTM A380 standards.**
- D. **Electric motors, gear reducers, and other self-contained or enclosed components shall have an acrylic enamel finish.**
- E. **All stainless steel parts of the unit shall be fully submerged into a pickling bath for at least 8 hours to remove welding spots and to protect the stainless steel against corrosion.**
- F. **Fabrication shall be done in compliance with all applicable ASTM standards or equivalent international standards.**
- G. **All welding in the factory shall use shielded arc, inert gas, MIG or TIG method. Filler wire shall be added to all welds to provide for a cross section**

equal to or greater than the parent metal. Butt welds shall fully penetrate to the interior surface and gas shielding to interior and exterior of the joint shall be provided.

- H. Bolts, nuts and washers shall be selected from AISI 304L or 304L stainless steel such that they are anti-seizing.**
- I. All welding is performed in accordance with American Welding Society (AWS) D1.1 Structural Welding Code, or equivalent.**
- J. Manufacturer shall provide screen, motors, gear reducers, controls, control panels, and lifting attachments as a complete integrated package to ensure proper coordination, compatibility, and operation of the system. The manufacturer shall test-run the fully assembled machine in his factory before shipment.**
- K. Manufacturer shall provide services by an employed and factory-trained Service Engineer, specifically trained on the type of equipment specified. The Service Engineer requirements include, but are not limited to the following:**
 - 1. The Service Engineer shall be present during initial energizing of equipment to determine directional testing as described in Section 4.01 C (Installation).**
 - 2. The Service Engineer shall inspect and verify location of anchor bolts, placement, leveling, alignment and field erection of equipment, as well as control panel operation and electrical connections.**
 - 3. The Service Engineer shall provide classroom and/or field training on the Operation and Maintenance of the equipment to operator personnel. These instructions may include the use of slides, videos, literature, and/or oral presentations.**
- L. Manufacturer shall state field service rates for a Service Engineer to Owner and Contractor. In the event that the field service time required by this section should not be sufficient to properly place the equipment into operation, and the requirement for additional time is beyond the manufacturer's responsibility, additional time shall be purchased by Contractor to correct deficiencies in installation, equipment, or material without additional cost to Owner.**

Equipment Manufacturers:

Manufacturer		
RakeMax Technology	by	Huber

Multi-Rake Raketec by Aqualitec
ContFlo ER from John Meunier

Alternates shall not be acceptable unless pre-approved. Costs for changes in design to accommodate alternative offers shall be borne by the alternate screen provider.

1.03 SUBMITTALS

A. Materials and Shop Drawings:

1. Copies of all material required to establish compliance with the Specifications shall be submitted in accordance with the provisions of the bidding documents. Submittals shall include at least the following:

- a. Certified shop and erection drawings showing all important details of construction, dimensions and anchor bolt locations.**
- b. Descriptive literature, bulletins, and/or catalogs of the equipment.**
- c. The total weight of the equipment including the weight of the single largest item.**
- d. A complete total bill of materials of all equipment.**
- e. Complete motor data.**
- f. Wiring diagrams and electrical schematics for all control equipment to be furnished.**

2. Submit drawings showing screen, conveyors, discharge chute and screenings washer/compactor and interconnections for each piece of equipment for Engineer's review.

B. Operating Instructions: Operating and maintenance manuals shall be furnished in accordance with the bidding documents.

1.04 DELIVERY, STORAGE AND HANDLING

A. The screen system shall be factory assembled and tested, and shall be delivered to the site for installation into the channel fully assembled. The screen shall be capable of being set in place and field erected by the Contractor with minimal field assembly. Contractor shall be responsible for

unloading of the machinery and shall have equipment on-site available at the time of delivery permitting proper hoisting of the equipment

- B. All parts shall be properly protected so that no damage or deterioration will occur during a prolonged delay from the time of shipment to the site until installation is completed and the unit is ready for operation.**
- C. Each box or package shall be properly marked to show its net and tare weight in addition to its contents.**

1.05 WARRANTY AND GUARANTEES

- A. The equipment manufacturer shall provide a two (2) year warranty for all items furnished. The warranty shall run concurrently with the Contractor's warranty and commence at final completion and acceptance by the Owner.**
- B. The warranty shall cover all necessary labor, equipment, materials, and replacement parts resulting from faulty or inadequate equipment design, improper assembly or erection, defective workmanship and materials, leakage, breakage or other failure of all equipment and components furnished by the manufacturer.**

1.06 ENGINEER'S APPROVAL OF ALTERNATE EQUIPMENT

- A. Manufacturer of alternate equipment shall submit a pre-approval package to Engineer at least two (2) weeks prior to bid date. Alternate manufacturer shall submit the following information and supporting documentation:**
 - a. Standard equipment drawings showing the equipment meeting the specifications in this section. If the proposed equipment does not meet these specifications, any deviation from the specification must be expressly noted. All deviations shall be listed on a single document.**
 - b. Detailed installation drawings illustrating how the proposed screen fits in the channel. The drawings shall include plan, elevation, and sectional views of the installation. Drawings shall include details of the discharge chute, details of the seal between screen and side walls of the channel, and details of anchor bolt locations.**
 - c. Hydraulic calculations and flow curves for the proposed screen verifying that the screen is capable of processing the peak flow.**
 - d. Motor characteristics and performance information.**
 - e. Reference list of all installations of same and similar equipment.**
 - f. Complete bill of materials for all equipment.**

- g. Certification by the manufacturer that all stainless steel equipment will be manufactured in a stainless steel only dedicated area of the factory.**
- h. Certification that the entire equipment will be passivated by submersion in an acid bath as per ASTM A380 standards.**
- i. Documentation of required maintenance for all equipment including an approved list of lubricants and the required quantities.**

PART 2 - PRODUCTS

2.01 GENERAL

- A. The equipment to be furnished and installed shall be fully automatic. The equipment shall be of the latest design and shall be fabricated of materials and in a fashion which shall fully perform the functions as described below.**
- B. The screen shall remove all suspended material larger than 3 mm in any dimension. The screened materials shall be automatically dewatered, compacted, and transported from the screen to the existing chute assembly.**
- C. Conveyors shall be suitable for installation and operation in the configuration with the new screen and existing conditions. The inlet shall be designed with a hopper to collect screenings from the discharge of the rake screen. A shaftless screw shall convey the solids to the discharge point. The conveyor shall discharge screenings into the existing discharge chute that direct screenings to the existing screenings dumpster below as shown in the Drawings.**
- D. The mechanical equipment, supports and accessories shall be designed to operate in a damp, wet and corrosive atmosphere. All parts of the equipment furnished herein shall be amply proportioned for all stresses that may occur during fabrication, shipment, erection and continuous operation. All parts subject to wear shall be standard pattern and easily replaceable. Adequate lubrication shall be provided for bearings with lubrication points readily accessible.**
- E. All materials shall be of quality to withstand the corrosion, abrasion and stresses to which this equipment will be subject during fabrication, erection and continuous operation.**
- F. All anchor bolts, nuts, washers and fasteners shall be made of Type 304 stainless steel unless otherwise noted and shall be of ample size and strength**

for the purpose intended. The equipment supplier shall furnish all anchor bolts, nuts, washers and fasteners required for the equipment.

- G. All stainless steel subassemblies shall be acid passivated after welding for corrosion resistance and to provide a superior surface finish. This shall be done by full dipping of weldments, electropolishing, or by using an acid passivation paste in the weld and heat affected areas and spray-on acid solutions elsewhere. After passivation, the elements shall be thoroughly rinsed with clean water and allowed to air dry. Bearings, electrical devices, motor and gear reducer shall be provided with the manufacturer's standard coating system. The drive shaft and spiral shall be prime coated carbon steel.**

2.02 SCREENING SYSTEM DESIGN

A. General Design:

1. All of the equipment specified herein is intended to be a fully-automatic, mechanically-cleaned and capable of removing miscellaneous suspended objects (screenings) greater in any dimension than 3 mm from raw sanitary wastewater.
2. All collected material shall be discharged from the rake screen into a screenings conveyor that discharges to a discharge chute into a washing/dewatering compactor that shall subsequently discharge the existing chute assembly, to the existing dumpster below.
3. There shall be no sprockets, bearings or drives required below the operating finished floor elevation. All maintenance shall be able to be accomplished at operating floor level.

2.03 RAKE SCREENS

A. General:

1. The bar screen shall remove debris (screenings) from the incoming wastewater by means of a positively cleaned bar rack that is installed in a concrete channel. The screen shall retain debris at the bar rack. A multitude of rake shall remove and lift the debris to a discharge mechanism. The bar rack shall be cleaned by a series of rakes engaging the bar rack from the upstream side (front) at the bottom of the channel and then moving up along the bar rack. The debris shall be lifted above the channel and dropped on a discharge chute at the downstream side (back) of the screen. Screens with single rakes shall not be approved. Screens employing brushes and spray water for screenings removal shall not be approved.
2. The bar rack shall consist of equally spaced, straight bars that are inclined from the horizontal with the inclination angle specified above. The lower ends of the bars shall be curved or shall be provided with a minimum 10/64" (4 mm) thick curved base plate such that the rakes positively remove all screenings from the bottom of the bar rack. Bars shall have a tapered orteadrop (up to a bar spacing of ½ inch or 12 mm) cross section. Tapered or Teardrop bars shall have a width of 5/16" (8 mm), a depth of minimum 2.4" (60 mm) and a tail width of 13/64" (5mm). The bar rack shall be made up of equally sized sections securely fastened to the frame of the screen and be readily removable. Screens without the ability to replace bar screen sections will not be acceptable for this project
3. **A discharge chute shall be provided that fully encloses the discharge section of the screen. An access hatch with hinges and a handle shall be provided in the chute permitting easy access. The discharge chute shall be mounted to direct screenings into the appropriate receiving container or conveyor. The chute shall have a slope of minimum 60 degrees. The discharge chute shall be made of a minimum 10/64 inch or 4 mm thick stainless steel plate.**

4. A frame shall be provided supporting all required loads. Side frames shall be made of 0.16" (4 mm) thick 304 stainless steel plates with a minimum of four axial edges and shall have a width of minimum 23 inches (584 mm). The side frames shall be connected with each other through channels having a minimum thickness of 10/64 inch (4 mm) and a minimum cross section of 4-1/4" x 2" (108 x 49 mm). The side frames shall be connected to support frames. The support frames shall be securely anchored onto the operating floor.
5. The screen shall be provided with easily removable, sufficiently stiffened covers made of 3/64 inch (1.5 mm) thick stainless steel plates with edges on all sides. The covers shall be provided with turn locks and handles.
6. 10/64 inch (4 mm) thick neoprene or rubber strips shall be fastened to the side frames to seal the lateral gaps between the side frames and the channel walls.
7. Rakes and rake profile and cross-section dimensions shall be as per manufactures standards. The rake blades shall have teeth matching and engaging the bars of the bar rack. Solid single piece rakes that require the entire width of the screen to be replaced are not acceptable. All rake material is to be of stainless construction. Plastic rakes are not acceptable.
8. A pivoting scraper mechanism shall be positioned at the point of discharge and shall be attached to the side frames. The scraper shall clean the rake on each pass and return to its rest position with minimal shock. The scraper shall be designed such that screenings do not wrap around the rake or scraper. The scraper shall be provided with a scraper bar made 10/64" inch (4 mm) minimum thick channel profile with a minimum cross section of 1-1/2" x 2-11/16" (39 x 68 mm) and an adjustable 3/8 inch (10 mm) thick wiper made of Polyethylene. The scraper shall be connected with the frame through a pair of minimum 20 inch (500 mm) long scraper arms that shall be made of 10/64" inch (4 mm) thick channel profile with a minimum cross section of 2-3/4" x 2-3/8" (68 x 59 mm). A pair of shock absorber elements made of neoprene shall be provided.
9. The drive shaft shall have a diameter of minimum 3-1/8 inch (80mm) and a wall thickness of minimum 13/64" (5 mm).
10. The drive unit shall be designed for continuous service and intermittent spray water contact.
11. A current metering system shall protect the equipment component against jamming. A continuous current reading (CMT) shall be monitored by an adjustable relay (CMR). The motor starting current being higher than the setting of the CMR, the jamming protection shall be put out of service by a time delay (TCM), for a predetermined adjustable motor start period, long enough to allow the current to fall below the CMR setting when it reaches its normal full load level. Upon detection of an over current, the dedicated motor shall stop and the "overload/blockage" alarm indicator light shall be activated. This system shall be reset manually by a push button. In the event of screen blockage, the control system shall stop the motor and sound an alarm. The reverse mode to try and clear the blockage is possible with manual mode only.
12. The parallel helical type gear reducer shall be a totally enclosed unit. Gear reducer shall have ball or roller bearings throughout with all moving parts immersed in oil. Gear reducers which require periodic disassembly of the unit and manual re-greasing of bearings are not acceptable. The nominal input power rating of the gear reducer shall be at least equal to the nominal horsepower of the drive motor. Gear reducer shall be designed and manufactured in compliance with applicable AGMA or equivalent standards. During continuous operation the oil temperature shall not exceed 200 degrees F (95 degrees C).
13. The rake assembly shall be driven by an electric motor. The motor shall be UL rated for operation in Class 1 Division 2 environment. The motor shall be inverter duty rated, 1.0 hp, 460 Volts, 60 Hz, 3-phase. The motor shall be rated for operation in a 104 degree F (40 degree C) environment.
- 14. All welds shall be cleaned and passivated to remove weld spatter, slag and discoloration. All stainless steel subassemblies shall be electro-polished to provide a superior surface finish. Bearings, electrical devices, drive chains and sprockets, drive and transmission shafts, motor and gear reducer shall be provided with the manufacturer's standard coating system.**

15. Design Criteria

Fluid:	Raw Sanitary Wastewater
Flow Rate (per screen):	Average 6.0 MGD Peak 10.0 MGD
Channel Width:	48 in
Channel Depth:	9'6"
Max Allowable Water Level Before Screen:	50 in
Water Level After Screen:	40 in
Angle of Inclination:	60-75degrees
Bar Spacing (Filtration Opening):	3 mm
Discharge Height:	per manufacturer (coordinate with screenings conveyor and existing conditions)
Dry Solids Content:	5-10%
Effective free open-area	60% (minimum)
Rake Travel Speed	26-39 feet per minute

B. Frame:

1. The frame shall provide support for all components of the screen. The unit shall rest on the top of the channel walls and the bottom of the channel and anchorage at the operating floor elevation.
2. The frame shall be supported at the operating floor elevation by a pair of support stands constructed from 0.16 inch thick Type 304 stainless steel. The support stands shall be designed such that the screen unit may be pivoted out of the channel (e.g. for bypass purposes). Routine service must be possible with the screen in the channel.
3. To prevent bypass around the sides of the unit, neoprene seals shall be mounted on the upstream face of the screen extending to the sidewalls on each side of the unit. The seals shall be secured in place by backing plates constructed from Type 304 stainless steel.
4. The base of the unit shall be supplied with a base plate to protect the area under the lamella pack. The plate shall direct heavy material onto the lamella pack, ensuring its capture and removal from the channel. The plate shall be constructed from Type 304 stainless steel.
5. The portion of the screen above the top of channel shall be fitted with covers and completely enclosed. The enclosures shall be 14 gauge constructed from Type 304 stainless steel. The covers shall be hinged for unobstructed access to the screening elements and any affected maintenance items. All enclosures shall be removable.

C. Drive Assembly:

1. The motor/reducer assembly shall be direct mounted to the drive shaft of the screen unit via the reducer's hollow shaft. The main drive shaft of the screen shall extend the width of the unit through the reducer and transmit motion to the end plates of the moveable pack located on each side of the unit. The drive shaft shall be connected to bearings at each end mounted to the frame of the unit. The drive shaft shall be constructed carbon steel and suitably machined for mounting to the bearings. Screens that utilize chain and sprocket systems or drive components located below the maximum downstream liquid level are not acceptable.
2. The reducer shall be a hollow shaft, helical-bevel gear type. The unit shall be provided with a cast iron frame and designed in accordance with AGMA recommendations for 24 hour, Class II service based on the horsepower required to operate the screen.

3. A mechanical anti-backward rotation device shall be located on the reducer output shaft to prevent the unit from coasting backwards off the home position. A release pin shall allow disengagement during initial startup.
4. The motor shall be TEFC, 2 Hp, 1800 RPM, 460 Volt, 3 phase, 60 Hz. The motor shall be NEMA design code B and be direct coupled to the reducer. Motor shall be suitable for installation in a Class 1, Division 2. Overload protection shall be provided by an electrical overload device that senses motor current draw.
5. A manual lubrication system shall be provided with lubrication lines and grease fittings extending from all grease points to a centrally located area accessible from the operating floor to facilitate lubrication of the equipment without requiring disassembly or the removal of covers and guards.
6. A proximity switch and lug shall be provided to detect the home position of the movable lamella pack in order to measure the number of operating cycles.
7. No lower sprockets.
8. Upper sprocket bearings shall have a paint coated cast iron casing and include ball bearings with grease nipples that are double-sealed with Nilos rings.

2.04 SCREENINGS CONVEYOR

A. General:

1. **Conveyors shall be suitable for installation and operation in the existing conditions. The inlet shall be designed with a hopper to collect screenings from the discharge of the rake screen. A shaftless screw shall convey the solids to the discharge point. The conveyor shall discharge screenings into the existing discharge chute that directs screenings to the existing screenings dumpster below.**
2. **The trough, support legs, hopper and any other metallic parts that will come in contact with wastewater or the moist environmental adjacent to the channel for the screen shall be of Type 304 stainless steel unless otherwise noted. The drive shaft and shafted screw shall be prime coated carbon steel.**
3. **All stainless steel subassemblies shall be fully passivated using electropolishing. Electropolishing shall produce a smooth uniform finish to achieve maximum corrosion resistance by removing all metallic inclusions and non-metallic inclusions on and beneath the surface. After passivation, the assemblies shall be thoroughly rinsed with deionized water, and allowed to air dry before. Bearings, electrical devices, motor and gear reducer shall be provided with the manufacturer’s standard coating system.**

4. Design Criteria

Inlet Solids Capacity (maximum):	As required to meet peak flow rate from barscreen
---	--

Angle of Inclination:	As required to meet existing conditions
Spiral OD:	Match existing conditions
Trough Length:	per manufacturer, coordinate with step screen, inlet hopper, discharge chute and existing field conditions
Configuration	pushing
Dry Solids Content:	5-10%

B. Shaftless Screw:

1. Each shaftless screw shall be constructed of 304 stainless steel. The spiral shall be supplied with a protective epoxy primer.

C. Drive Assembly:

1. The drive assembly consists of an electric motor, gear reducer and drive shaft.
2. The reducer shall be a helical gear type. The unit shall be provided with a cast iron frame and be designed in accordance with AGMA recommendations for Class II service based on the horsepower required to operate the screen.
3. The motor shall be TEFC, 1.5 Hp, 1800 RPM, 230-460 Volt, 3 phase, 60 Hz. The motor shall be NEMA design code B and be direct coupled to the reducer. Motor shall be suitable for installation in a Class 1, Division 2 area.
4. The motor/reducer assembly shall be a hollow shaft design and allow for direct insertion of the drive shaft.
5. The drive end of the shaftless screw shall be fitted with mounting flange to mate with the drive shaft connected to the motor/reducer assembly. This allows the screw to be replaced as an individual item without the need to disconnect the drive system from the unit, or removing the shaft from the gearbox.

D. Trough Assembly:

1. The trough assembly shall consist of an octagonal shaped trough, wear liner, inlet area, drainage zone, and trough cover. The octagonal shaped trough shall be constructed from 12 gauge Type 304 stainless steel.
2. Provide external slide brackets along the entire length of the conveyor to allow for attachment to leg assemblies to match site specific conditions with no welding or cutting required.

3. **Wear liner shall support the spiral throughout the trough length. Liner shall be constructed of 5/16 inch thick Ultra High Molecular Weight Polyethylene (UHMWP). Liner shall have a minimum density of 58 lb/ft³ and a Shore Hardness of 61. Wear liners shall be provided in 4 foot maximum lengths and held in place by clips for ease of replacement.**
4. **Coordinate inlet hopper dimensions and location with screen provided. Inlet hopper to be provided by the manufacturer.**
5. **Provide a 2 inch OD drain connection at the drive end. Pipe drain to discharge into channel below. Drain pipe shall be Type 304 stainless steel.**
6. **Except for the inlet area, the trough shall be supplied with covers. Trough covers shall be constructed from 12 gauge thick type 304 stainless steel and bolt to the flanges of the octagonal trough. Covers shall complete the octagonal shape of the trough assembly and act as hold downs.**

E. Support Legs:

1. **The unit shall have support legs constructed of Type 304 stainless steel to position and support the conveyor unit. Legs shall be field adjustable in position, height and angle without cutting or welding.**

2.05 DISCHARGE DROP CHUTE:

- A. **The existing discharge drop chute shall be reused. The Contractor is responsible for all modification necessary to make the new conveyor system discharge into the existing discharge drop chute.**

2.07 CONTROL SYSTEM

- A. **The control system shall be provided by the screen supplier.**
- B. **In addition to the drive motor, the equipment supplier shall furnish all electrical items required for proper operation and as specifically called for in this specification section.**
- C. **All electrical control equipment shall be mounted within a NEMA 4X Type 304 stainless steel enclosure with a dead front enclosure suitable for mounting as indicated in the drawings. The enclosure shall be equipped with a door and shall incorporate a removable back panel on which control components can be mounted. The back panel shall be secured to the enclosure with collar studs. The control panel shall be furnished by the manufacturer of the screening and compactor equipment and be designed to operate all appurtenant items**

associated with the equipment. The panel shall be designed and fabricated in accordance with all applicable provisions of NEMA and the National Electric Code.

D. Each control panel shall include the main circuit breaker, a breaker for each motor, a motor starter for each motor, repeat cycle timers, a liquid level actuated timer, delay timers, transformer, DIN Rail Mounted Mini Circuit Breakers, Hand/Off/Automatic switches, normal, off, and alarm lights, as applicable for proper operation of the screenings system. At a minimum the following control components shall be provided within the control panel to provide proper operation of the equipment:

1. Panel CP-1

a. Rake Screens

- Step down control transformer, and disconnect.
- Branch circuit protection.
- Screen drive motor starter.
- Emergency stop pushbutton.
- Hand-Off-Auto selector switch for the screen drive.
- True power monitor shall provide overload protection by sensing motor current draw.
- Hour meter for motor.
- Control power on, run and fault indicating lights.
- Alarm reset pushbutton.
- Programmable control relay provide necessary control logic and monitor equipment mounted electrical devices.
- Run and alarm auxiliary contacts for use by the customer.

b. Screenings Conveyors

- Branch circuit protection.
- Drive motor starter.
- Hand-Off-Auto selector switches for the drive.
- Load monitor for over torque protection of the drive motor.
- Hour meter for each motor.
- Control power and run indicating lights.
- Alarm light indicating over/under current and starter overload.
- Alarm reset pushbutton.
- Run and alarm auxiliary contacts for use by the customer.

E. All operating controls and instruments shall be securely mounted on the control compartment door. All controls and instruments shall be clearly labeled to indicate function.

- F. Indicator lamps shall be mounted in NEMA 4X modules, as manufactured by Allen-Bradley, or equal. Lamp modules shall be equipped to operate at 120 volt input and shall be press-to-test type. Lamps shall be easily replaceable from the front of the control compartment door without removing lamp module from its mounted position.**
- G. Mode selector switches shall be illuminated Hand/Off/Automatic type to permit over-ride of automatic control and manual actuation or shutdown of either motor. Switches shall be NEMA 4X, as manufactured by Allen-Bradley, or equal, providing three (3) switch positions, each of which shall be clearly labeled according to function. Separate press-to-test type indicator lamps, which shall operate at 120 volts input, shall be provided and mounted above Hand/Off/Automatic selector switches. Lamps shall be easily replaceable from the front of control compartment door without removing switch modules from their mounted positions.**
- H. Alarm relays shall be magnetic latching type, Bulletin 700HJ as manufactured by Allen-Bradley, or equal, with remote non-inductive alarm contacts. Time delays relays shall be electronic type.**
- I. A thermal-magnetic air circuit breaker, as manufactured by Allen-Bradley, or equal, shall be furnished for each motor and main breaker. All circuit breakers shall be sealed by the manufacturer after calibration to prevent tampering. Each circuit breaker shall be adequately sized to meet the equipment operating conditions.**
- J. In addition, provide the following:**
- 1. Rake Screens:**
 - a. Local Emergency Stop Pushbutton: For each screen, a local emergency stop pushbutton station shall be provided in a NEMA 8 enclosure for field mounting at each screen unit. Local emergency stop pushbutton shall be rated for Class 1, Division 2, Group D.**
 - b. Proximity Switch (Home Position Switch): For each screen, an inductive proximity sensor shall be provided for control of the home position of the moveable lamella pack. The sensor shall have a chrome plate finish and be supplied with an integral 2m integral cable.**
 - c. Level Control Devices: For each screen; the unit shall be controlled by the use of Wastewater Heavy Duty Float Switches – One (1) “OFF”, One (1) “ON”, and One (1) “HIGH LEVEL”. The float switches shall be installed in the upstream**

channel and mounted with the proper supports to allow proper operation during varying velocities in the channel. The float switch mounting support(s) shall allow for easy removal/re-installation for maintenance functions.

2. Conveyors:

- a. Local Emergency Stop Pushbutton: For each conveyor, a local emergency stop pushbutton station shall be provided in a NEMA 4X polycarbonate enclosure to be field located by the customer in close proximity to the equipment. Local emergency stop push button shall be rated for Class 1, Division 2, Group D area.**

2.08 SEQUENCE OF OPERATION

A. Rake Screen:

1. Hand Operation:

- a. When the screen selector switch is in the Hand position, the rakes shall run continuously. Turning the screen selector switch to Off shall stop the unit. In HAND position the operator shall be able to run the rake assembly selecting the respective FORWARD or REVERSE direction from the FORWARD-OFF-REVERSE selector switch**

2. Automatic Operation:

- a. In AUTO position the screen shall be controlled by the water level sensors. Screen operation shall be started when the water level sensors monitor a certain water level difference, when the ultrasonic level sensor detects high water level, or when a certain time has passed since the last operation of the screen. Screen operation shall be stopped with an adjustable delay time after the water difference is below a certain value and after the ultrasonic level sensor ceases to indicate high water alarm, or after a certain run time has expired (if operation was started by timer).**

3. Emergency Stop:

- a. The unit shall stop immediately if any of the associated Emergency Stop pushbuttons are pressed. When the E-stops are closed the unit may cycle immediately.**

4. Fault Conditions:

- a. **Excessive motor current shall trip the starter overload relays, immediately stop the drive motor, and illuminate the alarm indicating light. This fault must be reset by depressing the motor starter overload reset internal to the control panel.**
- b. **Momentary motor over current shall trip the current monitor, immediately stop the drive motor, and illuminate the alarm indicating light.**

B. Screenings Conveyor:**1. Hand Operation:**

- a. **When the screw selector switch is in the Hand position, the screw shall run continuously. Turning the screw selector switch to Off shall stop the unit.**

2. Automatic Operation:

- a. **When the screw selector switch is in the Auto position, the screw shall cycle on and off on demand from the screen control panel. An off delay timer shall control the end of the conveyor operational sequence.**

3. Fault Conditions:

- a. **Excessive motor current shall trip the starter overload relays, immediately stop the drive motor, and illuminate the alarm indicating light. This fault must be reset by depressing the motor starter overload reset internal to the control panel.**
- b. **Momentary motor over or under current shall trip the power monitor, immediately stop the drive motor, and illuminate the alarm indicating light. Pushing the reset pushbutton shall reset this fault.**

2.09 TOOLS AND SPARE PARTS

- A. **Spare parts shall be provided for the self-cleaning filter screen and conveyor. Such spare parts shall include all rings, gears, seals, and similar items needed for five (5) years of normal operation.**
- B. **At a minimum provide the following:**

1. Two (2) sets of rake stainless steel links
 2. Two (2) link attachments
 3. Two (2) sets of scraper pads
 4. Two (s) sets of chains
- C. Special tools, if required for normal operation and maintenance, shall be furnished with the equipment by the manufacturer.
- D. Spare parts shall be properly bound and labeled for easy identification without opening the packaging and suitably protected for long-term storage.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Installation of the screening and conveyor systems shall be in strict accordance with the manufacturer's instructions and recommendations in the location shown on the Drawings. Installation shall include furnishing the manufacturer's recommended grades of oil and grease necessary for operation. All anchor bolts and other mounting or erection nuts, bolts, washers or other hardware shall be Type 304 stainless steel. Anchor bolts shall be set by the Contractor in accordance with the manufacturer's recommendations.
- B. Contractor shall verify all dimensions in the field to ensure compliance of equipment dimensions with the drawings. Contractor shall notify Engineer of significant deviations.

3.02 INSPECTION AND TESTING

- A. The manufacturer shall provide the services of a competent and experienced equipment manufacturer's factory field engineer to supervise start-up and provide training to the Owner's personnel. The field factory engineer shall be available for one (1) trip for two (2) 8-hour days to inspect the installed equipment and supervise the start-up demonstration and testing. The factory field engineer shall be available for a separate 8-hour day to provide training to the Owner's personnel. Training of the Owner's personnel will only be considered valid for approval by the Engineer if it takes place after the successful Start-up and Demonstration Test.

END OF SECTION

EXHIBIT B

BASIS OF COMPENSATION

As consideration for providing the Services as set forth in the Agreement, the CITY agrees to pay, and the CONTRACTOR agrees to accept payment on a time and reimbursement cost basis as indicated in Exhibit B, which is attached and made part of this Agreement. The CITY is adding a separate \$40,000.00 CITY controlled Contingency to the issuance of this Agreement making the total amount of the Agreement at \$448,041.85.

Retainage: 10% Retainage will apply for the duration of this Agreement and its pay requests.

**CITY OF NAPLES WASTEWATER TREATMENT
PLANT BAR SCREEN REPLACEMENT
BID SCHEDULE**

No.	Description	Unit	Quantity	Unit Price	Total
1	Mobilization/Demobilization	LS	1	18,055.00	18,055.00
2	General Requirements	LS	1	3,680.00	3,680.00
3	Bar Screen Replacement (Southern)	LS	1	200,875.10	200,875.10
4	Bar Screen Replacement (Northern)	LS	1	185,431.75	185,431.75
TOTAL					408,041.85

1. Price for Mobilization/Demobilization shall include all cost for preparatory work and operations in mobilizing and demobilizing for beginning/ending work, including movement of personnel, equipment, supplies and incidentals to/from the project site, and any other pre and/or post construction expense necessary for the work. Contractor shall be limited to a maximum of five percent (5.0%) of the total price bid for mobilization. The cost of mobilization shall be shown in the Schedule of Values. Demobilization shall be shown in the Schedule Of Values as a minimum of twenty-five percent (25.0%) of the value for mobilization

2. Price for General Requirements shall include all costs for insurance requirements, administrative costs, permitting, field engineering, construction schedules, construction photographs, shop drawings, temporary facilities, safety, and first aid supplies, sanitary and other facilities (as required by specifications), and all other related items as required to complete the proposed work, per the Drawings, Specifications, and City of Naples requirements.

3&4. Price for Bar Screen Replacement (Southern/Northern) shall include all costs for furnishing and installing a complete and operable bar screen and conveyor system and shall include demolish, removal, and disposal of existing appurtenances as required; wiring, cable, conduit, anchors, supports, straps, clamps, and connectors as required; connections to proposed and existing components; connection to existing power supply; concrete work, metal work, testing, startup, and all other related items as required per the Drawings, Specifications, and City of Naples requirements.

Note: The City of Naples retains the right to award a contract based on all, a portion, or none of the costs above.

Company Name Quality Enterprises PH 239-435-7200
USA, Inc.

Name and Title of individual completing this schedule:

Louis J. Gaudio Vice President
(Printed Name) (Title)


(Signature)

7/1/14
(Date)

END OF EXHIBIT B

EXHIBIT C

GENERAL INSURANCE REQUIREMENTS

The Contractor shall not commence work until he has obtained all the insurance required under this heading, and until such insurance has been approved by the Owner, nor shall the Contractor allow any subcontractor to commence work until all similar insurance required of the subcontractor has also been obtained and approved by the Owner.

Certificates of insurance must be issued by an authorized representative of the insurance company at the request and direction of the policyholder and must include sufficient information so as to identify the coverage and the contract for Owner's improvements for which they are issued. Certificates of insurance must be issued by a nationally recognized insurance company with a Best's Rating of no less than B+VII, satisfactory to the Owner, and duly licensed to do business in the state of said Contract.

The Contractor shall procure and maintain, during the life of this Contract, Workmen's Compensation Insurance for all of his employees to be engaged in work under this Contract, and he shall require any subcontractor similarly to provide Workmen's Compensation Insurance for all of the latter's employees to be engaged in such work, unless such employees are covered by the protection afforded by the Contractor's insurance. In case any employees are to be engaged in hazardous work under this Contract, and are not protected under this Workmen's Compensation statute, the Contractor shall provide, and shall cause each subcontractor to provide, adequate coverage for the protection of such employees. It is acceptable to use a State-approved Workmen's Compensation Self-Insurance fund.

The Contractor shall take out and maintain during the life of this Contract, Public Liability and Property Damage and shall include Contractual Liability, Personal Injury, Libel, Slander, False Arrest, Malicious Prosecution, Wrongful Entry or Eviction, Broad Form Property Damage, Products, Completed Operations and XCU Coverage to be included on an occurrence basis, and to the full extent of the Contract to protect him, the Owner, and any subcontractor performing work covered by this Contract from damages for personal injury, including accidental death, as well as from claims for property damage, which may arise from operations under this contract, whether such operations be by himself or by a subcontractor, or by anyone directly or indirectly employed by either of them. The Contractor shall also maintain automobile liability insurance including "non-owned and hired" coverage. The entire cost of this insurance shall be borne by the Contractor.

The amount of such insurance shall be no less than \$1,000,000 annual aggregate for bodily injury and property damage combined per occurrence.

The City of Naples must be named as Additional Insured on the insurance certificate and the following must also be stated on the certificate. "These coverage's are primary to all other coverage's the City possesses for this contract only." The City of Naples shall be named as the Certificate Holder. The Certificate Holder shall read as follows:

The City of Naples
735 Eighth Street South
Naples, Florida 34102

No City Division, Department, or individual name should appear on the Certificate.
No other format will be acceptable.

The Certificate must state the bid number and title.

When using the ACORD 25 – Certificate of Insurance only the most current version will be accepted.

The City of Naples requires a copy of a cancellation notice in the event the policy is cancelled. The City of Naples shall be expressly endorsed onto the policy as a cancellation notice recipient.

[If other insurance or insurance requirements or any waivers, attach as Exhibit C-1through C-__]

EXHIBIT D

CERTIFICATION OF COMPLIANCE WITH IMMIGRATION LAWS

The undersigned is the **Vice President of the Quality Enterprises USA, Incorporated** company ("the CONTRACTOR"), and hereby certifies to the following:

1. The CONTRACTOR is in full compliance with all provisions of the Immigration Reform and Control Act of 1986 ("IRCA"), as well as all related immigration laws, rules, regulations pertaining to proper employee work authorization in the United States.

2. The undersigned has verified that the CONTRACTOR has obtained and maintains on file, and will continue to obtain and maintain on file, all documentation required by law, including but not limited to, Form I-9, Employment Eligibility Verification, for all persons employed by or working for the CONTRACTOR in any capacity on any project for the City of Naples (CITY). All such persons have provided evidence of identity and eligibility to work to the CONTRACTOR in accordance with the IRCA and related law. The undersigned hereby affirms that no person has been or will be employed by the CONTRACTOR to work on projects for the CITY who is not authorized to work under law. The undersigned further affirms that the CONTRACTOR's files will be updated by written notice any time that additional employees work on projects for the CITY.

3. The CONTRACTOR will have its contractors, subcontractors, suppliers and vendors who are involved in projects for the CITY to sign a written acknowledgment that they too are in compliance with immigration law. It is understood that failure to do so could result in the CONTRACTOR being liable for any violation of the law by such third parties.

4. The CONTRACTOR will fully cooperate with and have its contractors, subcontractors, suppliers and vendors to fully cooperate with, all inquiries and investigations conducted by any governmental agency in connection with proper compliance with the laws pertaining to appropriate work authorization in the United States.

5. The undersigned, on behalf of the CONTRACTOR, acknowledges that this Certification may be relied upon by the CITY, its officers, directors, employees, and affiliates or related persons and entities.

6. If it is found that the CONTRACTOR has not complied with the laws pertaining to proper employment authorization, and any legal and administrative action ensues against the CITY, the CONTRACTOR will indemnify, defend and hold the CITY harmless along with their officers, directors, employees, and affiliated or related persons and entities.

7. The CONTRACTOR acknowledges that the CITY by their authorized representatives shall have the right, at any time, upon 24 hours notice, to examine the CONTRACTOR's books and records to confirm that the CONTRACTOR is in compliance with the terms of this certification.

Executed this 23rd day of July, 2014.

By: 

Louis J. Gaudio, Vice President

ACKNOWLEDGMENT

STATE OF Florida

COUNTY OF Collier

SWORN TO AND SUBSCRIBED before me this 23rd day of July, 2014.

The Affiant, Louis J. Gaudio, is [x] personally known to me or [] has produced _____ as identification, which is current or has been issued within the past five years and bears a serial number of other identifying number.



Print Name: Marcie L. Cohen

NOTARY PUBLIC – STATE
OF Florida

Commission Number: FF 070688

My Commission Expires: 2/11/18

(Notary Seal)

